

In the Claims:

Please add the following claims 13-89:

13. A method of making an intraluminal device, comprising:
forming a pattern in a surface of a mandrel;
depositing a device material in the pattern; and
dissolving the mandrel.
14. A method of making an intraluminal device according to claim 13, wherein the mandrel
comprises at least one of a rod and a tube.
15. A method of making an intraluminal device according to claim 13, wherein the
intraluminal device is at least one of a stent and a catheter.
16. A method of making an intraluminal device according to claim 13, wherein the device
material comprises at least one of titanium, tantalum, niobium, zirconium, stainless steel,
and platinum.
17. A method of making an intraluminal device according to claim 13, wherein the mandrel
comprises at least one of stainless steel, molybdenum, and tungsten.
18. A method of making an intraluminal device according to claim 13, wherein an outside
diameter of the mandrel is greater than an outside diameter of the intraluminal device.
19. A method of making an intraluminal device according to claim 13, further comprising
removing an excess portion of at least one of the device material and the mandrel.

20. A method of making an intraluminal device according to claim 19, wherein removing the excess portion comprises at least one of grinding and machining the at least one of the device material and the mandrel.
21. A method of making an intraluminal device according to claim 13, wherein forming the pattern comprises photoetching the surface.
22. A method of making an intraluminal device according to claim 21, wherein photoetching the surface includes etching to a selected depth, wherein the selected depth is less than the thickness of the mandrel.
23. A method of making an intraluminal device according to claim 13, wherein depositing the device material comprises at least one of vapor depositing, casting, electro-forming, forging, crimping, sputtering, plating, and sintering the device material in the pattern.
24. A method of making an intraluminal device according to claim 13, wherein the pattern includes a rounded bottom.
25. A method of making an intraluminal device according to claim 13, wherein the pattern includes more than substantially one depth.
26. A method of making an intraluminal device according to claim 13, wherein the device material comprises more than one layer of materials.
27. A method of making an intraluminal device according to claim 13, wherein the device material comprises a radiopaque material.
28. A method of making an intraluminal device according to claim 13, depositing the device material comprises overfilling the pattern.

29. A method of making an intraluminal device according to claim 13, wherein the pattern is formed by at least one of chemical milling, laser milling, electro-discharge machining, casting, and machining.
30. A stent comprising a stent material, wherein the stent material is formed in a pattern on a mandrel.
31. A stent according to claim 30, wherein the mandrel comprises at least one of a rod and a tube.
32. A stent according to claim 30, wherein the stent material comprises at least one of titanium, tantalum, niobium, zirconium, and platinum.
33. A stent according to claim 30, wherein the mandrel comprises at least one of stainless steel, molybdenum, and tungsten.
34. A stent according to claim 30, wherein an outside diameter of the mandrel is greater than an outside diameter of the intraluminal device.
35. A stent according to claim 30, wherein the stent material is further formed by removing an excess portion of at least one of the stent material and the mandrel.
36. A stent according to claim 35, wherein removing the excess portion comprises at least one of grinding and machining the at least one of the stent material and the mandrel.
37. A stent according to claim 30, wherein the pattern is formed by photoetching the surface.
38. A stent according to claim 37, wherein photoetching the surface includes etching to a selected depth, wherein the selected depth is less than the thickness of the mandrel.

39. A stent according to claim 30, wherein the stent material is formed in the pattern by at least one of vapor depositing, casting, electro-forming, forging, crimping, sputtering, plating, and sintering the device material in the pattern.
40. A stent according to claim 30, wherein the pattern includes a rounded bottom.
41. A stent according to claim 30, wherein the pattern includes more than substantially one depth.
42. A stent according to claim 30, wherein the stent material comprises more than one layer of materials.
43. A stent according to claim 30, wherein the stent material comprises a radiopaque material.
44. A stent according to claim 30, wherein the stent material is formed by overfilling the pattern.
45. A stent according to claim 30, wherein the pattern is formed by at least one of chemical milling, laser milling, electro-discharge machining, casting, and machining.
46. A stent according to claim 30, wherein the mandrel comprises a soluble material.
47. A stent formed by the process of:
forming a mandrel having a stent pattern;
providing a stent material in the stent pattern; and
dissolving the mandrel.
48. A stent according to claim 47, wherein the mandrel comprises at least one of a rod and a tube.

49. A stent according to claim 47, wherein the stent material comprises at least one of titanium, tantalum, niobium, zirconium, and platinum.
50. A stent according to claim 47, wherein the mandrel comprises at least one of stainless steel, molybdenum, and tungsten.
51. A stent according to claim 47, wherein an outside diameter of the mandrel is greater than an outside diameter of the intraluminal device.
52. A stent according to claim 47, wherein the stent is further formed by removing an excess portion of at least one of the stent material and the mandrel.
53. A stent according to claim 52, wherein removing the excess portion comprises at least one of grinding and machining the at least one of the stent material and the mandrel.
54. A stent according to claim 47, wherein the pattern is formed by photoetching the surface.
55. A stent according to claim 54, wherein photoetching the surface includes etching to a selected depth, wherein the selected depth is less than the thickness of the mandrel.
56. A stent according to claim 47, wherein providing stent material in the pattern includes at least one of vapor depositing, casting, electro-forming, forging, crimping, sputtering, plating, and sintering the stent material in the pattern.
57. A stent according to claim 47, wherein the pattern includes a rounded bottom.
58. A stent according to claim 47, wherein the pattern includes more than substantially one depth.

59. A stent according to claim 47, wherein the stent material comprises more than one layer of materials.
60. A stent according to claim 47, wherein the stent material comprises a radiopaque material.
61. A stent according to claim 47, wherein the stent material is provided by overfilling the pattern.
62. A stent according to claim 47, wherein the pattern is formed by at least one of chemical milling, laser milling, electro-discharge machining, casting, and machining.
63. An assembly for forming a stent, comprising:
a mandrel comprising a surface, wherein a pattern is formed in the surface of the mandrel; and
a stent material in the pattern.
64. An assembly according to claim 63, wherein the mandrel comprises at least one of a rod and a tube.
65. An assembly according to claim 63, wherein the stent material comprises at least one of titanium, tantalum, niobium, zirconium, and platinum.
66. An assembly according to claim 63, wherein the mandrel comprises at least one of stainless steel, molybdenum, and tungsten.
67. An assembly according to claim 63, wherein an outside diameter of the mandrel is greater than an outside diameter of the stent.

68. An assembly according to claim 63, wherein the assembly is formed by removing an excess portion of at least one of the stent material and the mandrel.
69. An assembly according to claim 68, wherein removing the excess portion comprises at least one of grinding and machining the at least one of the stent material and the mandrel.
70. An assembly according to claim 63, wherein the pattern is formed by photoetching the surface.
71. An assembly according to claim 70, wherein photoetching the surface includes etching to a selected depth, wherein the selected depth is less than the thickness of the mandrel.
72. An assembly according to claim 63, wherein the stent material is provided in the pattern by at least one of vapor depositing, casting, electro-forming, forging, crimping, sputtering, plating, and sintering the device material in the pattern.
73. An assembly according to claim 63, wherein the pattern includes a rounded bottom.
74. An assembly according to claim 63, wherein the pattern includes more than substantially one depth.
75. An assembly according to claim 63, wherein the stent material comprises more than one layer of materials.
76. An assembly according to claim 63, wherein the stent material comprises a radiopaque material.
77. An assembly according to claim 63, wherein the stent material overfills the pattern.

78. An assembly according to claim 63, wherein the pattern is formed by at least one of chemical milling, laser milling, electro-discharge machining, casting, and machining.
79. An assembly according to claim 63, wherein the mandrel comprises a soluble material.
80. A mandrel for forming an intraluminal device comprising an outer surface, wherein the outer surface includes a device pattern formed therein.
81. A mandrel according to claim 80, wherein the mandrel comprises at least one of a rod and a tube.
82. A mandrel according to claim 80, wherein the mandrel comprises at least one of stainless steel, molybdenum, and tungsten.
83. A mandrel according to claim 80, wherein an outside diameter of the mandrel is greater than an outside diameter of the intraluminal device.
84. A mandrel according to claim 80, wherein the device pattern is formed by photoetching the surface.
85. A mandrel according to claim 84, wherein photoetching the surface includes etching to a selected depth, wherein the selected depth is less than the thickness of the mandrel.
86. A mandrel according to claim 80, wherein the device pattern includes a rounded bottom.
87. A mandrel according to claim 80, wherein the device pattern includes more than substantially one depth.
88. A mandrel according to claim 80, wherein the device pattern is formed by at least one of chemical milling, laser milling, electro-discharge machining, casting, and machining.

89. A mandrel according to claim 80, wherein the mandrel comprises a soluble material.